Installation Instructions for Becker AR4201, comm radio harness, to two places:

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

1) ‘AR4201 SPEAKER: (Optional) Connect center conductor to (+) tab on 4 or 8 ohm, 5 watt speaker. Connect the black, shield wire to the (-) tab. This can also be done with two 4 ohm speakers in series or two 8 ohm speakers in parallel.

2) ‘AR4201 PILOT AUDIO': Solder the center conductor to the audio hi tab, which corresponds to the only contact on the audio jack. Solder the black shield wire to the ground tab, which corresponds to the threaded portion of the jack. Repeat this for the ‘AR4201 COPILOT AUDIO’ wires.

3) ‘AR4201 PILOT PTT = Blu, PILOT Mic Hi = Wh, PILOT Mic Lo = Blk: All conductors of this multi-conductor wire go to the mic jack. Solder the blue, striped wire to the push to talk tab, which corresponds to the 'tallest' contact on the jack. Solder the white wire to the mic hi tab, which is the 'shorter' contact on the jack. Solder the black shield wire to the ground tab which corresponds to the threaded portion of the jack.

(*) If installing a push-to-talk switch, use the single conductor, shielded wire, marked 'PILOT PTT'. Solder the center conductor to the same tab as the blue striped wire (PTT = Blu) installed in this step. Solder the black shield wire to the ground tab (Ground = Blk). Route and cut this wire to length and install the solder sleeve and jumper wire to the shield. Solder the center conductor and shield wire to the tabs of the customer provided push-to-talk switch.

Repeat these steps for the ‘AR4201 COPILOT PTT = BLU, AR4201 COPILOT MIC HI = Wh, AR4201 COPILOT MIC LO = Blk’ and ‘COPILOT PTT’ wires.

4) ‘AR4201 AUX AUDIO IN': (Optional) This circuit may be used to place auxiliary audio or music on the pilot’s headset audio. Solder the center conductor to the twisted wires on the resistors, already attached to the small music jack. Solder the black shield wire to the short, ground tab on the music jack.

5) ‘AR4201 LIGHTS': If you wish to activate the back light on the radio face, solder the 'Light' wire to one tab of the normally open contacts of a customer provided switch. Solder a +12 VDC wire to the other contact. When the contacts close, the back light in the radio face will be lit. If desired a dimmer pot may be used in place of the switch. If no lights will be used, cap and stow this wire.

6) ‘AR4201 GROUND': Attach this twisted pair of wires to either airframe ground or a dedicated avionics ground. This may be accomplished with solder or by installing a ring terminal and using the appropriate hardware, as necessary.

7) ‘AR4201 POWER': Install an appropriately sized ring terminal and attach to the 'load' terminal of a 5 amp circuit breaker OR connect it to a 5 amp fuse.
* ALWAYS check that the power supplied to the radio is correct as per the manufacturer's requirements. *

8) Connect the 25 socket connector to the back of the radio with the self-contained slide lock.

9) Connect a coax antenna cable from the antenna to the BNC connector at the back of the radio.
*NEVER attempt to transmit without the antenna connected to a com radio. The transmitter WILL be damaged. *

Special notes:
These instructions only address the electrical installation of this radio. Follow the manufacturer's instructions for all other aspects of the installation, such as the antenna connections and the mechanical mounting.

The speaker or audio (headphones), or both may be used. If speaker and audio are both connected, a switch should be installed on the speaker (+) wire so that if headphones are being used, the speaker can be switched off.

When installing the mic or audio jacks on a conductive surface, the fiber isolation washers MUST be used. Drill a 7/16" hole to allow the shoulder of the black washer to seat and push the mic jack through its hole. Place the

brown fiber washer and thin metal washer over the threads and tighten the nut. Customer must provide audio and mic jacks, when used. Suggest Switchcraft, #11 audio jack and S12B mic jack, or equivalent.

When installing the aux audio jack on a conductive surface, the white nylon washers MUST be used. Drill a 5/16" hole and fit the shoulder of the white, shouldered, washer into the hole. Insert the music jack through the shoulder washer and place the white, flat washer over the threads and tighten the knurled nut.

Verify correct connections of power and ground wires. Engage the circuit breaker and turn on radio. Program the radio as per the manufacturer's instructions and ensure that any desired options are activated at this time.

Tune the radio to any desired frequency and listen for incoming signals, on the speaker and/or headphones. Plug a hand mic or boom mic into the mic jack and check that a clear voice signal is transmitted. Any aircraft band radio can be used when making these checks, such as a handheld or the radio in another aircraft.

Plug a music source, such as an I-Pod, into the aux audio jack. Check for clarity and volume.

Fly and enjoy!